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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/885,220	06/20/2001	William Kurt Dobson	97-573-A	3203

7590 07/16/2004

McDonnell Boehnen Hulbert & Berghoff
32nd Floor
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Chicago, IL 60606

EXAMINER

HA, DAC V

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 07/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/885,220

Applicant(s)

DOBSON, WILLIAM KURT

Examiner

Dac V. Ha

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-20 is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the amendment filed on 04/29/04.
2. This application is in condition for allowance except for the following formal matters:

Claim 1:

Line 4, the recitation "said first port" should be changed to "the first port".

Line 5, the recitation "said second port" should be changed to "the second port".

Line 6, the recitation "said transceivers" should be changed to "said plurality of transceivers".

Line 7, the recitation "receiver" should be changed to "a receiver".

Line 10, the recitation "said transceivers" should be changed to "said plurality of transceivers".

Line 12, the recitation "said received time domain signal" should be changed to "the received time domain signal".

Line 13, the recitation "said equalizer" should be changed to "said frequency domain equalizer".

Line 15, the recitation "transceiver" should be changed to "receiver".

Line 19, the recitation "said filter taps" should be changed to "filter taps".

Line 19, the recitation "each said carrier" should be changed to "said each carrier".

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Line 20, the recitation "at least two non-adjacent carriers" should be changed to "said at least two non-adjacent carriers".

Claim 2:

Line 1-2, the recitation "said know symbols" should be changed to "said at least one known symbol".

Claim 3:

Line 1, the recitation "said equalizer" should be changed to "said frequency domain equalizer".

Claim 4:

Line 1, the recitation "said equalizer" should be changed to "said frequency domain equalizer".

Line 2, the recitation "said known symbols" should be changed to "said at least one known symbol".

Line 2, the recitation, "said at least two carriers" should be changed to "said at least two non-adjacent carriers".

Claim 5:

Line 1, the recitation, "said at least two carriers" should be changed to "said at least two non-adjacent carriers".

Claim 6:

Line 2, the recitation "the POTS" should be changed to "a Plain Old Telephone Service (POTS)".

Claim 7:

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Line 1, the recitation "said multi carrier modem" should be changed to "each of said plurality of transceivers".

Claim 8:

Line 3, the recitation "a computing device" should be changed to "the computing device".

Lines 4-5, the recitation "a shared electrical signaling medium" should be changed to "the shared electrical signaling medium".

Line 6, the recitation "said first and second physical interfaces" should be changed to "the first and second physical interfaces".

Line 7, the recitation "said first interface" should be changed to "said first physical interface".

Line 8, the recitation "said second interface" should be changed to "said second physical interface".

Line 9, the recitation "each said burst" should be changed to "each of said modulated multi-carrier data bursts".

Line 12, the recitation "said equalizer" should be changed to "said frequency domain equalizer".

Line 13, the recitation "data burst" should be changed to "data bursts".

Line 15, the recitation "said equalizer" should be changed to "said frequency domain equalizer".

Line 15, the recitation "said filter taps" should be changed to "equalizer taps".

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Claim 13:

Line 2, the recitation "the frequency range" should be changed to "a frequency range".

Line 2, the recitation "POTS services" should be changed to "a Plain Old Telephone Service (POTS)".

Claim 14:

Line 1-2, the recitation "said multi carrier transceiver" should be changed to "said transceiver".

Claim 15:

Line 7, the recitation "the points" should be changed to "the signal points".

Line 8, the parameter "N" should be clearly defined (i.e. N is an integer greater than 1).

Line 10, the recitation "a plurality of computing devices" should be changed to "the plurality of computing devices".

Lines 10-11, the recitation "a shared communication medium" should be changed to "the shared communication medium".

Line 12, the recitation "time domain signals" should be changed to "the time domain signals".

Claim 17:

Line 1, "Nth" should be changed to "Nth".

Claim 18:

Line 2, the recitation "set of" should be changed to "set of signal points".

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Claim 19:

Line 2, the recitation "POTS" should be changed to " Plain Old Telephone Service (POTS)".

Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter.

Allowable Subject Matter

3. Claims 1-20 are allowed.

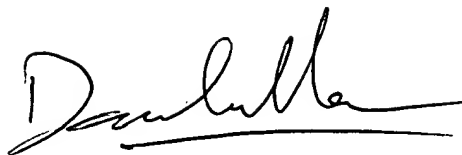
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dac V. Ha whose telephone number is 703-306-5536. The examiner can normally be reached on 5/4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 703-305-4714. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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A handwritten signature in black ink, appearing to read "Dac V. Ha", written over a horizontal line.

Dac V. Ha
Examiner
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